THE

HORTICULTURIST.

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Hints on Grape Culture.—XXVIII.

As intimated in our last, we this month take up another mode of training the vine. It is not our purpose to exhaust the subject in these "Hints;" we intend, nevertheless, to give sufficient detail to make each mode of training tolerably clear to the beginner. Not a few valuable and interesting details are purposely kept in reserve, in order that these "Hints," when elaborated in book form, may have some original freshness, and be read again with interest and profit.

The mode of training now to be treated of we shall designate the "*short arm renewal system.*" It is a good system, quite simple, can be made comparatively inexpensive, produces good crops, and may at any time be converted into the double arm system if desired. It is not, however, in its results, equal to the double arm system; that is to say, it will not, per acre, yield so large a crop of the best quality of fruit. But then, again, it does not require so large an outlay of labor and money, and for this reason we consider it the best of all systems for a man of moderate means.

We may pass by the preparation of the soil, planting, etc., the requirements of the present system on these points being the same as the double arm system, already described. The rows should be six feet apart, and the vines four feet apart in the rows. The vines, during the first year, are to be grown to a single cane. The whole treatment, such as tieing up, pinching in laterals, etc., will be the same as that described for yearling vines grown on the double arm system. At the end of the season the vines must be pruned down to the two low-

Fig. 1.

est eyes, as shown in *Fig.* 1. In exposed

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places, heap a little earth around the short cane thus left. Uncover early in the spring, that the vines may have an early start. The buds *c*, *d*, and *e* will all start. If *c* and *d* should break strong, retain these, and rub out *e*. If *c* should be weak, rub it out and retain *d* and *e*. You can judge of their strength when the young shoots are about three inches long.

If any of the vines should have made a feeble growth during the first year, which is sometimes the case, these feeble ones must be grown another year to a single cane. The object must be to get a good foundation to build the superstructure upon.

The example given in *Fig.* 1 is that of a vine in which the stump at *b* was not cut away as soon as it should have been, and the cicatrice is consequently large; but it will entirely heal over in the course of another year.* It was designed to preserve the shoot proceeding from *a*, but it was broken off during the month of June, and the vine thus placed in the condition of a yearling. The cane itself had proceeded from an eye beneath the surface.

At the beginning of the second year is the best time to furnish the permanent support for the vines. A wire trellis *may* be used, but is not at all necessary, and weakens one of the points we have made in favor of this system; that is to say, the trellis in this system is an unnecessary expense. The needed support is afforded by two stakes to each vine. These should be placed about a foot from the body of the vine, one on each side. They should be put at least eighteen inches into the ground, and project about seven feet above. The holes for the stakes are best made by a crowbar. These stakes are to remain permanently, and are the only support the vines will need. They should be from three to four inches in diameter at the butt. They may be of Red Cedar, Yellow Locust, or Chestnut, whichever can be most readily procured. The Locust and Chestnut may be split into proper sizes. If Chestnut is used, it would be well to char the ends. The charring should be smooth, and free from cracks. The complaint sometimes made, that charred posts do not last, is owing to the fact that the charring is cracked like a honey comb, presenting a thousand openings for the entrance of moisture, the bottoms of these cracks not being charred at all. If charring is not done, two or three coats of stone paint will answer the purpose very well. The posts should be set firmly in the ground.

To return to the vines. The best two shoots having been selected, they are to be tied to the stakes, and the tieing repeated as often as may be necessary to keep the shoots in their places. The laterals must

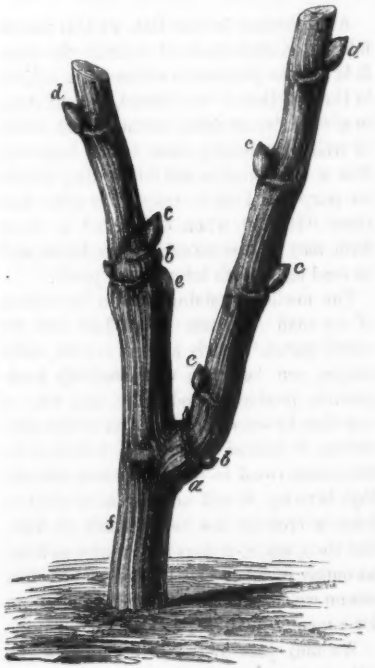


Fig. 2.

be pinched in, retaining an additional leaf at each pinching, as heretofore directed. The treatment, in short, is precisely like the double arm system during the second year. About the beginning of September the

shoots may be stopped, which will help to ripen them.

The pruning at the end of the second season may be seen in *Fig.* 2. The object now is to get two arms from twelve to eighteen inches long; that is to say, arms that shall be thus long when bent in their places. It is important that the arms be of the same length; one cane, consequently, will be pruned a little longer than the other, to make allowance for the length of old wood, as seen in the figure. At the beginning of the next growing season, all the shoots, except the two marked *d*, are to be rubbed off. The buds marked *c* would, if left on, produce some fruit, but only at the expense of the future strength of the vine. The cane at the right hand is just a little longer than that at the left; but if we should cut to the next bud beneath, *c*, this bud would not be on the right side of the cane when it is curved to form the arm. Hence it becomes necessary to say, that the canes must be so pruned that the buds at the end will always be on the upper side when the arms are bent down. This rule must be observed whether the arms are bent in reversed order or not. When the arms are bent in reversed order, the terminal buds must always be on the outside. When not reversed, the buds must be on the inside. When the arms are bent down, the buds will then be on the upper side.

The vine shown in *Fig.* 2 is not the same as shown in *Fig.* 1. Another vine was selected in order to give the reader as many examples as possible of variety of growth The vine in *Fig.* 1 is the Creveling; that in *Fig.* 2 is Rogers's Hybrid No. 15, which has shown remarkable vigor. The trunk, *f*, came from an under-ground bud. The stump, *e*, was pruned early and close, and the new shoot drawn over to a stake; the growth consequently looks as if it were almost continuous. Such niceness is not necessary, and may very well be left to the amateur who has time, patience, and skill. The bud at *a* was remarkably developed, as may be seen by its having, at the time of growth, drawn out, as it were, a portion of the trunk. It is only, however, a remarkable instance of vascular development.

The third year's growth will be considered in our next.

LETTER FROM JAPAN FROM MR. HOGG.

We have the pleasure of laying before our readers another interesting letter from Mr. Hogg. His many friends will be glad to learn that he is in the enjoyment of excellent health, and is industriously employed in exploring the country for rare and valuable plants, of which he has already gathered a very interesting collection. Some have arrived in this country, and others are on the way. We are in the way of realizing our expectations, that Mr. Hogg would very materially enrich our collections of ornamental and useful plants. If in doing this he could at the same time succeed in learning the Japanese the use of improved horticultural implements, and subdue some of their peculiar prejudices, he would be benefiting two nations at one and the same time:

Kanagawa, April 30th, 1863.

Mr. Editor,—Although much has been written extolling the climate of this country, my experience of it the past winter confirms all that has been said regarding it. The change from living in a climate of at times almost Arctic severity, to one where the cold is just sufficient to bring about the delightful changes of the seasons, renders it a season of prolonged enjoyment, and really seems to add so many days to the span of life. In the northern and western parts of the country, where exposed to the cold blasts from Tartary, it is said to be much colder; but the ameliorating influences of

the Pacific have a marked effect on the eastern coast. Since the heavy rains of October there has not been much wet weather until about a month past, and then not very continuous, and probably not more than necessary to sustain the growing crops in the porous soil of the country. The verdure of the growing crops gives a charming appearance to the landscape. The entire absence of fences between the fields gives a naturalness to the prospect that is, in a certain sense, delightful, but in another point of view does away with the idea of individual possession so intimately associated in our minds with a homestead and personal prosperity. The yards surrounding the houses are usually inclosed with a rude hedge of Cryptomeria, Retinospora, Althea, or some other strong-growing shrub. Their mode of trimming a hedge is very rough, and it is only occasionally that you see one at all neat and passable as a real hedge. I have never yet seen one clipped pyramidal.

It seldom happens that there is sufficient frost to impede the working of the soil, and during the past winter not once, and there is no doubt it is owing to the fact of the frost not penetrating the soil to any considerable depth that so many plants that are hardy here prove too tender to withstand our climate. Very rarely ice is formed of sufficient thickness for skating. The soil is a deep, black, light loam, much resembling the soil frequently used for growing Camellias found in the ledges and at the base of rocks. Much has been said of its productiveness; but in this I think it is more owing to liquid manuring continually applied than to any very great natural fertility. That this is the case is occasionally very apparent, by observing patches of grain in places where manuring has been neglected looking very stunted and yellow. These remarks apply only to the soil on the high lands; that in the numerous intervening valleys, where rice is grown, producing large crops by irrigation alone. In places along the valleys where the surface is too elevated for the purposes of irrigation, and yet too wet for growing cereals, a simple expedient is resorted to, to bring it under culture for both, by laying it out in sections of the same width, about 30 feet, and convenient length, and then throwing the soil of every alternate section on the top of the adjoining one until of sufficient height. On the raised sections grain or vegetables are grown, and in the intermediate ones rice. With you such lands are chiefly used as meadows for hay or grazing; but here, where little or no meat is used for food, every effort is used in raising grain for the support of the population.

One drawback in gardening here is the want of proper native grasses, in this respect resembling our Southern States. A lawn is a thing almost unknown, as I only know of one attempt in that direction within the limits of foreign residences. The grass used is a native perennial one, but in the winter season turns entirely brown, and loses its beauty. It is a very close, dwarf-growing species, and would be admirably adapted to the purpose were it to keep its color the whole season. A former resident, lately returned, has brought with her a variety of our grasses for the purpose as an experiment, and it is to be hoped some of them will prove successful, although I do not think the Japanese, with their love for miniature gardening, will appreciate them for some time to come.

In common with the Chinese, all their notions of beauty seem to be in torturing into fantastic forms any thing that will answer the purpose, making fish-ponds with miniature bridges a necessary accompaniment in every garden, rock-work imitations of mountains, etc. In their way, some of their designs are very pretty, and have a merit of their own not entirely to be condemned as a branch of the art, and a pleasing appendage where it can be properly introduced. Of landscape gardening, as understood with us, they seem to have no idea.

At the present time the farmers are all busy preparing their rice lands and sowing their seed beds for transplanting. The laborers wade into the deep mud, and bury the noxious weeds that have come up during

the early spring by turning over the soil with a pronged hoe, like your potato hoe, when it is soon covered again by the water rising to the surface, rendering it level again. In one of my rambles I was witness of their mode of sowing the seed. The patches of land used for the purpose are prepared the same as the others, and the seed sown very thickly. After it is sown a man follows with a long-handled broom, like a birch broom, and beats the surface until it becomes almost a liquid mass on the top. I was surprised to find the grain had all been sprouted until the roots had become an eighth of an inch long. I am not aware of the practice in the Carolinas, and this may be an idea that possibly might prove useful.

Vegetable gardening is yet in its infancy here; not that there is not quite a variety grown, but that they seem to have no appreciation of the advantages of prolonging the season of any particular kind by forcing, or cultivating earlier and later varieties, or successive sowings. Peas sown in the fall are now becoming plentiful, but when this crop is gone that is the end of them for the season. The same also with lettuce, now entirely gone. Carrots have been very abundant and fine all the winter. Another vegetable they grow, called the DY-KU—a name applied to all the radish kind—is much used among themselves. Large quantities of it are dried or pickled for winter's provision. It is of the radish kind, only very large, averaging 18 inches, and as large in diameter as the top end of a large parsnip, not, however, tapering, but terminating abruptly. It is pure white, having somewhat of a turnip flavor also. Whether it has been introduced since the country has been opened to foreigners I am unable to say, but it is hardly possible its culture would become so universal in so short a time, besides never having seen it previously, although it might have been introduced from Europe. The same might also be said of tomatoes and egg plants, which I saw extensively cultivated in the neighborhood of Yedo, both of very small size. Whether they are a portion of the seeds distributed at the time of Perry's expedition, or whether they have been cultivated for years past, is a question I am unable to determine. If they are, they have allowed them to sadly degenerate. The question might be asked, "What became of those seeds and others presented since? Were they diplomatically received with bows and thanks, and then quietly cast aside, or really put to practical use?"

The implements of husbandry are of the most primitive and simple description, and few in number. The principal one is a large heavy grub hoe, in common use for all purposes. It is either made of wood, shod with iron, or of the better kind the blade made entirely of iron. The blade is usually about 15 inches long, and 6 to 8 broad, having a short handle, as in a common grub hoe. It is an unwieldy implement, but answers pretty well in their light soil. The difficulty attending its use is, that the worker is continually treading down the newly turned soil. Until some bold innovator changes the custom of going barefoot, or at least wearing something more substantial than straw sandals, the advantages of a spade can not be turned to practical account. They have an implement somewhat resembling a spade, having a long blade without any shoulders for resting the foot. For what particular purposes it is used I do not know. These, together with the pronged hoe, the sickle, a fanning mill, (consisting of a simple wheel in a box resembling the one in use with you,) and an instrument like a small road scraper, made of bamboo with an iron blade in front, and used for raising earth from deep trenches, are about all that are used. Gardeners have very neatly-made sieves, either of bamboo or wire, in addition to the above.

Having extended my letter beyond the limits first proposed, I must postpone my gossip about plants until my next, by which time, if we are not all driven out of the country by the impending war, I hope to interest your readers with a few things that have interested myself. Yours, etc., T. H.

RESIDENCE OF CHARLES F. PARK, ESQ.

BY GEO. E. WOODWARD, ARCHITECT, ETC., 37 PARK ROW, N. Y.

This residence occupies a commanding position on the northern end of the Palisades, western side of the Hudson, some twenty miles above the city of New York, the river, mountain, and inland views from which are exceedingly fine, embracing the villages of Dobbs' Ferry, Irvington, Tarrytown, Sing Sing, Piermont, Nyack, and Tappan, as well as Tappan Zee and Haverstraw Bay, the distant Highlands of the Hudson, and the beautiful valleys of the Sparkill and the Hackensack, a section of country rich in historic associations, and highly appreciated by those who seek suburban homes.

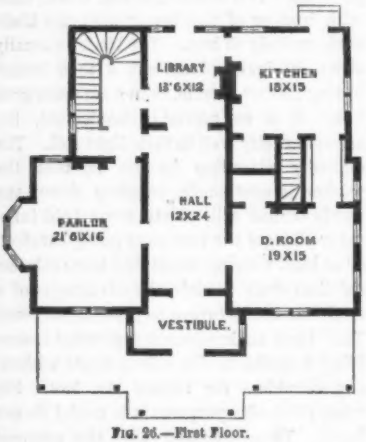


Fig. 26.—First Floor.

This house was designed principally for a summer residence, being nearly fifty feet square, with wide halls and spacious verandah, and commodious and well-ventilated sleeping apartments, the plans showing the arrangement of rooms. The style of architecture selected is that generally known as the Rural Gothic, which, perhaps, is the most useful and most beautiful of any that are adapted to the requirements of our climate. The almost square form of the plan is one of the most difficult to treat successfully in this style, yet has been carried out in the most satisfactory manner. This style admits of an almost never-ending variety of form and proportion, and in effects of light and shadow at all hours of day is unequaled. Its comparative expense but little exceeds the hipped and Mansard roofs.

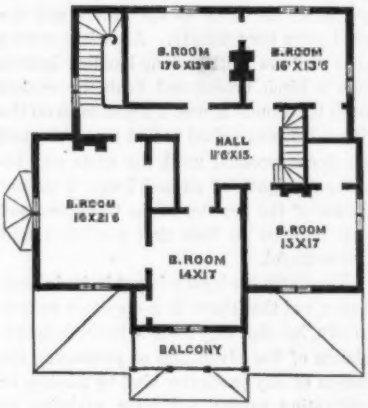


Fig. 27.—Second Floor.

The building is constructed in the most thorough and workman-like manner, and is as well adapted for a winter residence as for summer. The frame is built in the balloon style, (the strongest known form of framing,)

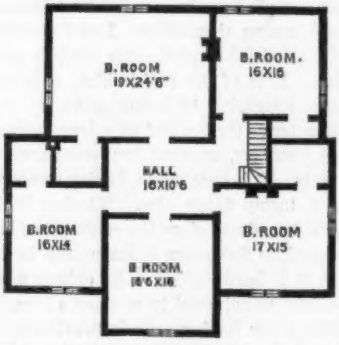
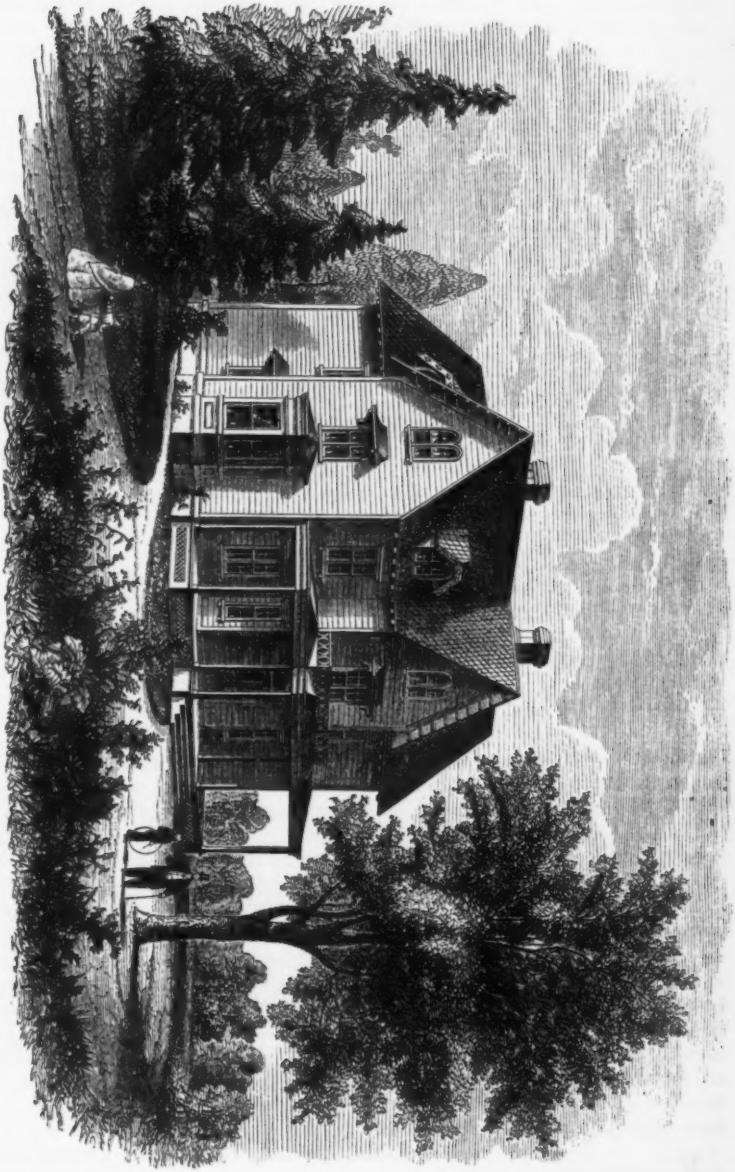


Fig. 28.—Third Floor.



RESIDENCE OF CHAS. F. PARK, ESQ., NEAR SNEDEN'S LANDING, ON THE HUDSON.

GEO. E. WOODWARD, ARCHITECT, 37 PARK ROW, NEW YORK.

with deep studding filled in with brick, having double air chambers, is thoroughly finished throughout, is covered with a slate roof, and fulfills all the requirements of a substantial and commodious country residence.

CARRIAGE HOUSE AND STABLE.

Fig. 29.—Stable.

Fig. 30.—Stable Plan.

This design for a stable slightly varies in its exterior from the one prepared by us for Mr. Park. It is well calculated for the accommodation of three or four horses, and affords all the conveniences requisite to keep things in order with the least amount of labor.

CULTIVATING FRUIT TREES.

BY PRATIQUER.

An inference may be drawn from the writer's experience in elucidation of this subject. In 1855 a farm was purchased, on which were originally 108 choice apple trees, set out ten years before. The farm having been rented for five years to A. Skinner, no care was given to the trees in that time, but the grass was regularly cut, made into hay, and carted off to market. On examination in the spring of 1856, when I took possession, seventy-seven of these trees were worthless: destroyed by worms and other causes. Having no other manure, I applied to the three acres of orchard 100 bushels of lime ashes from a neighboring lime-kiln, plowed in the sod, planted with corn, kept the weeds down, and the following season seeded down with timothy and clover, and this has remained in grass ever since, yielding about one and a half tons per acre annually. The cultivation gave to the thirty-one remaining trees a new growth, and in the fall of 1862 I gathered, for the first time, about a bushel of apples from each tree.

In 1857 I set a new orchard of three acres about four hundred feet distant from the above, with young trees; plowed and harrowed the ground, raised fodder corn between the rows, and have kept the ground stirred every season until the present one, when the scarcity of labor has prevented me from plowing it. Last year I had the rows forked up, but not manured at any time, and now the promise of fruit from each tree far exceeds that of those planted twelve years before.

Case 2d.—In the spring of 1856 I had a number of Pear and Cherry trees set in grass

land, adjoining my lawn. I was anxious to get my trees set out at once, so that they might be growing, instead of losing a season to prepare the land. But my gain in this respect was on the wrong side of the profit and loss account. It was a loss of time and expenses, as I shall endeavor to show. These trees, seven years in grass, scarcely grew any until dug around and cultivated last year.

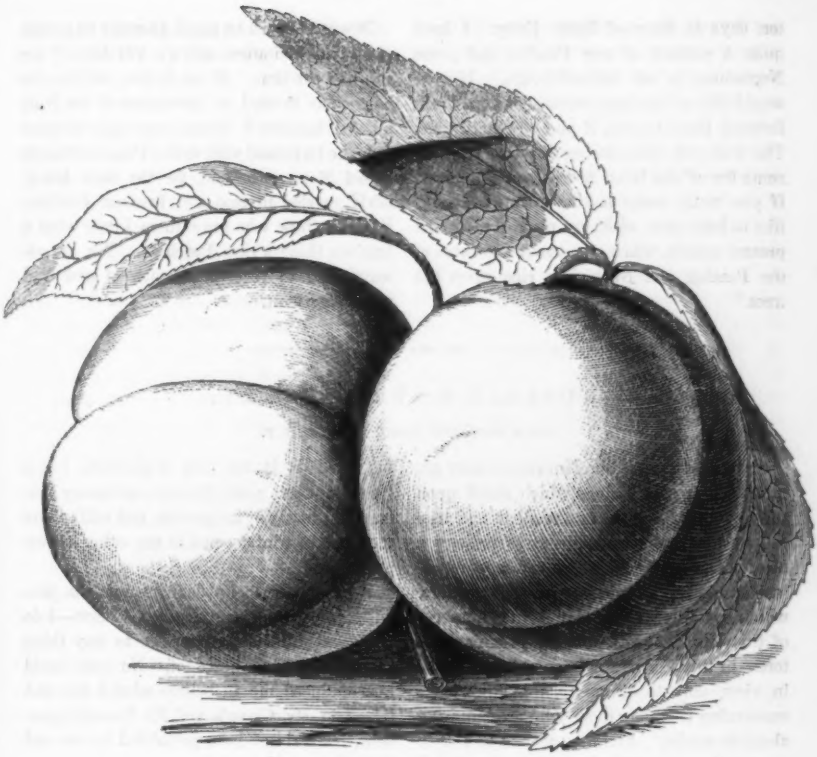
In 1858 I ordered from a Rochester nursery more Pear trees than I could accommodate in cultivated ground, and accordingly set the standards in grass near those planted two years before. The holes were dug of ordinary size, and rich earth (compost) mixed with the soil; but the grass soon enveloped the trees, and so remained for four years. As neither the plantings of 1856 nor 1858 appeared to grow or gain any thing, I directed my workman, in 1862, to dig around them six feet across, remove the sods to the compost heap, and make the ground mellow. The Irishman's spade was like an enchanter's wand; there was no need of the magical words. The trees were relieved of an incubus; they began to grow; new, long, and vigorous shoots put forth. They advanced more in 1862 than in a whole (tree's) lifetime before, and this year are making fruit-buds. Unintentionally, some half dozen Pear trees were omitted. The conjurer's spade did not reach them. To-day (July, 1863,) I measured two Zoar Beauties, of equal size and quality when planted, one cultivated, the other not. The first is eight and two-twelfth feet high after pinching, and seven and three-quarter inches in girth. The latter, with nothing to pinch, is four and ten-twelfth feet high and five and one-half inches around the body; both measurements four inches above the ground. Other trees of the same quality in every respect, which were planted in cultivated ground in 1858, now measure eight and seven-twelfth feet high after heading in by summer pruning, and ten and one-quarter inches in circumference. I know of no other cause for this difference than cultivation, and shall be pleased if you, or any of your contributors, will assign a valid one. My advice to all inexperienced cultivators of fruit, and to new beginners, is, first to prepare the ground, and then to cultivate your trees. You will save time, enjoy your fruit earlier, have it of better quality, and more of it. When these results are attained, you may, *if you choose*, let your trees "*go to grass.*"

[This is to the point; and similar cases might be multiplied *ad infinitum*. Scores of them have come under our observation. The difference between the trees on your lawn was owing altogether to the fact of a part of them having been taken out of grass. Remove the sod and mellow the soil around the remainder, and they too will at once start into a new growth. The sod robs the tree of both nourishment and moisture. All who have failing orchards should plow them up.—Ed.]

HALE'S EARLY PEACH.

BY THE EDITOR.

Several of our correspondents, it will be remembered, have sent us favorable accounts of Hale's Early Peach. These accounts induced us to express a wish that somebody would send us a sample to test. This has been kindly done by Mr. Pullen, of Hightstown, N. J., well known as an extensive Peach grower. The specimens were received on the 2d of July, in fine condition. We have had an engraving prepared, and herewith present it. There seems to be no doubt that it is the earliest good Peach we have; it is, therefore, valuable. The Peach is one of the few fruits we "hanker" after before we can get them. A good kind, therefore, that will anticipate the usual season by a week or ten days, will be welcomed by all. We are much pleased with this Peach, not only for



HALE'S EARLY PEACH.

its earliness, but for its goodness. It is early, handsome, and good. The reader has already been made familiar with its history; but we may add here a description of the fruit.

Size, medium. *Form*, round, depressed at the top, with a deep suture extending around half the fruit. *Skin*, greenish yellow, with a deep crimson cheek. *Flesh*, white, juicy, sweet, and well flavored. *Stone*, small. *Glands*, small, globose. It is a free-stone Peach, with large, long, deep green leaves, slightly serrated on the edge; midribs white. The new wood is light green, last year's wood being shaded red.

Mr. Pullen's letter contains some interesting items in relation to the earliness of this Peach, and we therefore make the following extract:

"It is a new Peach, and ripens from six to ten days before the Troth's Early Red or the Early York, (Serrate,) the two latter Peaches being the earliest known for orchard culture. The above I consider valuable on account of the earliness of its ripening, which adds from six to ten days to the peach season; and the more valuable because it ripens in the first part of the season, making it valuable for North and East.

"The inclosed fruit I grew in my orchard [house.] I placed the tree by the side of the Troth's Early, in order to find the difference in the time of ripening, and find from six to

ten days in favor of Hale's Early. I have quite a number of new Peaches and some Nectarines in my orchard-house. If you would like to have specimens sent you, I will forward them to you, if you will notify me. The fruit will ripen during July and August, some few of the latest not before September. If you could make it convenient, I should like to have you visit my place during the present month, when you could see some of the Peaches and Nectarines ripe upon the trees."

It would afford us much pleasure to accept your kind invitation, and we will do so if we can find the time. If we do not, will you be so good as to send us specimens of the fruit alluded to above? Some years ago we used to make an annual visit to the Peach orchards of old Monmouth, and, for the time being, fairly reveled in ripe and luscious Peaches. Few but those who grow them know what a luscious thing a ripe Peach is. We are always glad to receive samples of new and promising fruit.

RUSSELL'S STRAWBERRY.

BY S. EDWARDS TODD, AUBURN, N. Y.

As the readers of the HORTICULTURIST are interested in new things which stand upon their own merits as really excellent and useful, we have taken the liberty to prepare a brief notice of this far-famed and most excellent strawberry, known as Russell's Prolific, which has been advertised in former numbers of this journal. We have no pecuniary interest in this berry, and have no other object in view, only to diffuse reliable knowledge concerning it among those who are inquiring about its merits. And, in order to be able to answer those inquiries in a reliable manner, I went to Seneca Falls, fourteen miles distant, on purpose to see Mr. Russell's plants and berries, and of learning something about its origin and productiveness.

Mr. George Clapp, of this city, is the proprietor of the plants, and raised large quantities of most magnificent berries the present season.

A brief history of this plant is as follows: It was originated by Mr. H. Russell, of Seneca Falls, Seneca county, N. Y., in the year 1856, and has been cultivated by himself and Mr. George Clapp ever since, and has proved itself to be one of the best, if not *the very best*, strawberry in our country. It is the largest and most prolific bearer of any kind of strawberries of which I have any knowledge; and, after a trial of six years, it has proved itself to be a berry that has no successful rival. It is not only a pistillate, but a staminate also; and I hesitate not to say that it is very hardy in its growth, and will endure the frosts of winter equal to any other known plant.

With regard to its deliciousness, its productiveness, and size of berries, I *know*—I do not *guess*—that it is superior to any thing that I ever saw or heard of. No man could have induced me to believe what I saw and tasted in Mr. Clapp's and Mr. Russell's gardens, if I had not been permitted to see and taste for myself.

The berries are cultivated in hills, and it was truly astonishing to witness what piles upon piles of them there were in a single hill. In one single hill, which was exhibited at Rochester, there were two hundred and twenty berries! And I counted on a single hill, in Mr. Russell's strawberry bed, twenty-six stems heavily loaded with very large and delicious berries, some of which were as large as hen's eggs.

In order to test the flavor of these berries, as there were a few hills of the Wilson growing in the same bed, I would eat some of each; and, to my surprise, I found that I could detect the difference between these and the Wilson, were I blindfolded. The flavor of the Wilson was so very pungent and acrid, and almost entirely destitute of the delicious aroma which the Russell's Prolific

possesses, that the palate, without the aid of the eye, could determine with certainty which was a Russell and which a Wilson.

[This is a pretty strong notice, and rather more indiscriminate than we are in the habit of publishing. It is all very well to say that a fruit is better than any thing we ever saw, if we think so; but how can Mr. Todd say that he *knows* the Russell is superior to any thing he ever *heard* of? Such looseness materially lessens the value of an opinion, and should be carefully avoided. It is not characteristic of Mr. Todd, and may be put down as a slip of the pen that it would not have been worth while to notice, but for the fact that he lays so much emphasis on it. We happen to know, however, that Russell's Prolific is a very good fruit. It is one of those kinds of strawberries that "stool" freely, and it does not, therefore, show its productiveness generally the first year. That is the character of the plant in our own grounds, and as we have seen it elsewhere. We mention this to prevent disappointment on the part of those who expect to see its alleged character for productiveness realized the first year. It will require another year to establish its character for productiveness under general cultivation. It is known to produce a very large crop in certain localities, and our opinion is that its character, in this respect, will prove to hold good generally under the conditions we have named.—Ed.]

PLANT HOUSES.—III. A GREEN-HOUSE AND HOT-HOUSE.

BY THE EDITOR.

Plant houses having a specific object in view, it is not possible to indulge in a great variety of forms without sacrificing their utility, or creating a great deal of room that can not be applied to any useful purpose whatever. In this respect they differ in a marked manner from dwelling-houses, which allow of great latitude in design and construction. It really requires a deeper inventive faculty to design a useful and picturesque plant-house than it does to design a picturesque dwelling, and it requires also a knowledge of quite a different character. That some degree of picturesqueness, however, is consistent with utility, we think will be apparent on examining the design herewith presented. The plan was made for H. B. Hurlbut, Esq., of Cleveland, Ohio. It is intended for a green-house and hot-house combined. It is located near the dwelling and in sight of the public highway. It is in the form of a cross.

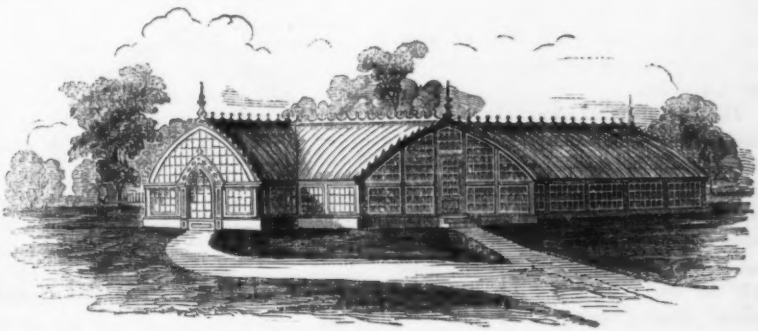


Fig. 1.

Fig. 1 is a perspective view, as seen from the street. The porch or front entrance is

somewhat elaborated, but with an entire absence of heavy wood-work. The finials and the ornament along the ridge are light and pretty, and harmonize with the general design. The roof is a continuous fixed roof. The valleys and angles break up the structure in a very pleasing and effective manner, and the elevation, as a whole, is one that will arrest attention.

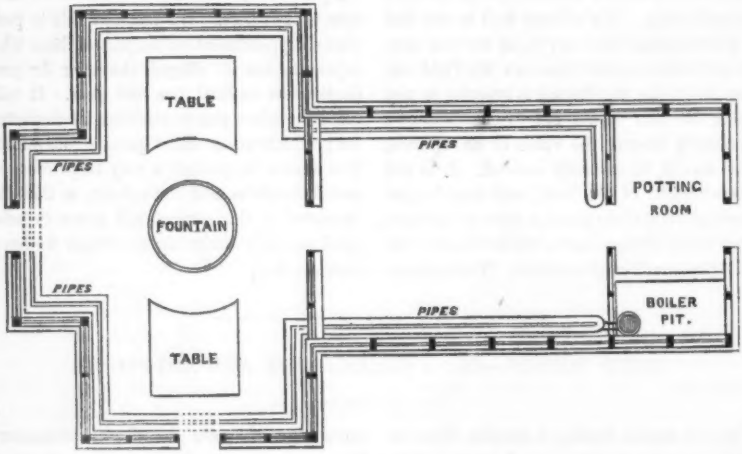


FIG. 2.—Plan.

Fig. 2 is the ground plan. Directly opposite the front entrance is a fountain, on each side of which vases may be placed. There are two center tables, but the house would be prettier without them. There are tables around the sides of the house, not shown in the plan. This apartment will be used principally for plants in bloom. Passing through the middle door, we come to another apartment, which will be kept at a higher temperature for the purpose of forcing plants into flower. At the end, on the right-hand side, is the boiler-pit, which is partitioned off. It is large enough to hold two or three tons of coal. There is a coal-shoot on the outside. On the left is the potting-room. This will be fitted up with a writing-desk, and shelves and drawers for books, seeds, etc. Every other side-sash is hung at the bottom for ventilation. There are also ventilators on the top, and over the doors. *Fig.* 3 is a sectional view of the house.

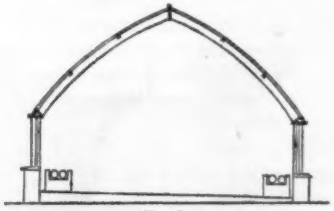


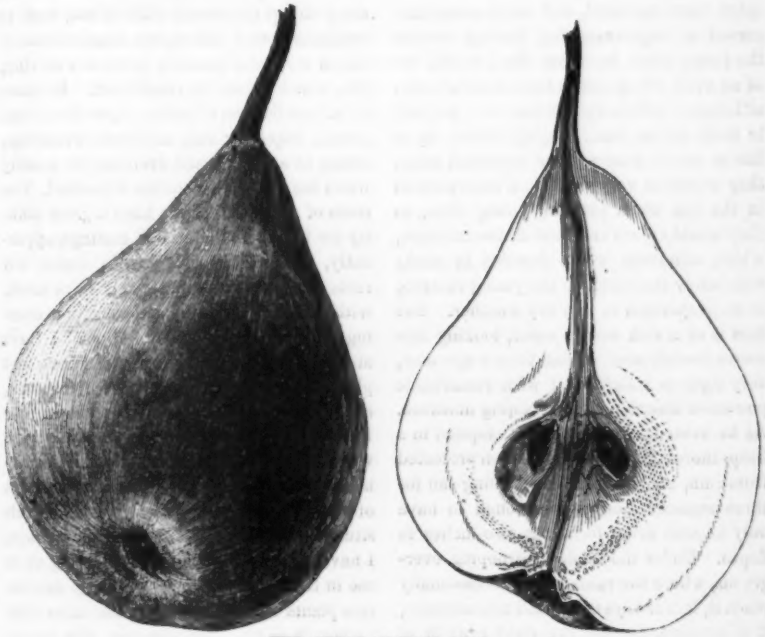
FIG. 3.

There is scarcely any part of this structure that does not, at some time during the day, receive a portion of the sun's rays; some more, some less. A little judgment, therefore, on the part of the gardener who has charge of the place, will enable him to grow well a large variety of plants.

THE GREAT BRITAIN PEAR.

BY THE EDITOR.

A PEAR under this name was among those sent to us by Messrs. Ellwanger & Barry. There is some doubt as to its identity, and we therefore hesitated about giving its portrait. We thought, however, that some of it in several particulars. It seems that there are no less than *five* pears described in foreign catalogues under the name of Great Britain, some ripening in the fall, some in winter, and some in the spring. Whether the pear under consideration is either of these, and which, we have not the means at present of determining; but it would be desirable to identify it, if possible, since it is one of the best of late winter pears. It is juicy, and half melting, ripening in March and April.



THE GREAT BRITAIN PEAR.

our readers who import new pears might probably recognize it, and help to clear up the mystery which surrounds it. Mr. Barry thinks it may prove to be the Spanish Bon Chretien; but it is a much better pear than the Spanish Bon Chretien, and differs from

COCOA FIBRE WASTE.

BY B. C. TOWNSEND, BAY RIDGE, L. I.

PETER B. MEAD, ESQ:—*Dear Sir*,—In compliance with your request, I herewith give you my brief experience with the "*Cocoa Fibre Waste*," the more willingly as

have received many inquiries in regard to it, by letter, since your issue of this month, and the following remarks may be taken by the gentlemen who addressed me, as an answer to their various queries. First, as to the material itself; it is the *dust* which falls from the fibre in the process of making mats, not the fibre itself, which is tough, stringy, and of no apparent value for horticultural purposes. I mention this, as mistakes have occurred, and some annoyance caused to beginners, they having secured the tough outer husk and fibre, which are of no avail for potted plants or nice work, although I believe that, when used perhaps in their course state, roughly broken up as fine as can be done without too much labor, they would be very valuable if incorporated in the soil when planting young trees, as they would absorb and hold all the moisture, which otherwise would descend in sandy soils below the reach of the young rootlets, or be evaporated in very dry weather. The dust is of a rich brown color, looking like coarse Scotch snuff or fine brown saw-dust, very light in weight, and with remarkable powers of absorbing and retaining moisture. As an evidence, a barrel of it emptied in a heap, thoroughly wetted, and then protected from rain, but exposed to a broiling sun for three summer months, was found to have only become dried for about two inches in depth. Under the shade of drooping evergreens, where the rains or dews occasionally reach it, it is always moist, and this accounts, in a measure, for the luxuriant growth of such evergreens as I have described, although its very gradual decomposition has no doubt an important influence.

It is only by continued experiments that we can learn whether it is equally adapted for all classes of plants. For *some* species it shows itself to be admirably adapted by quick results, and when used in the same proportions with other kinds the results will not be so evident. For instance, used *pure*, Ferns, as far as I have tried, run riot. Adiantum cuneatum transferred from a six-inch pot, was full and cramped in a thirteen inch, in three months, with a head thirty-two inches across; while, on the other hand, used pure for Achimenes, Gloxinias, Tydeas, etc., there evidently is not nourishment enough, while, mixed with half loam, they are finer than when potted in the usual soil.

It would be too tedious, perhaps, for your readers, as well as occupy too much space, to go through with all my experiments, and those interested will doubtless obtain some of it and try for themselves, for there are many things connected with its use, such as watering potted plants, the constitutions of which vary, the question of over-watering, etc., which must be considered. It seems to be excellent as a bottom layer for potted plants, requiring only moderate waterings, acting as a sponge, and draining off readily when the point of saturation is reached. The roots of nearly all plants have a great affinity for it, and it induces in cuttings, apparently, a more robust effort to throw out roots than any other material I have tried, with some few exceptions, the cuttings coming out with large mats of roots. I have also twisted out the crowns of pines, and plunged in this material in the forcing beds, had strongly rooted plants in three to four weeks. In the cutting or propagating beds, which are heated by hot-water tanks underneath, one watering in the commencement of the season is all that is required; in this situation it never dries, even on the surface. I have found it of value in enabling us to use in the blazing sun all day long, decorative plants which we can not use otherwise, except in shade; for instance, the lovely "Lobelia speciosa," its rich blue masses completely covering the ground all summer, the ground covered before planting with a coating of waste two inches deep. The plants, say six inches apart when set out, soon reach each other, and give us an effect very beautiful, and that can not be equaled by any other plants. Speaking of "effects" in bedding plants, I wish you could see that produced by the new "Coleus Verschæffeltii" in a circular bed about twelve feet in diameter, plants, say fifteen inches apart, and kept pinched in to a height say fifteen inches, the leaves of each plant now, at this writing,

meeting "en masse," with a center piece of "Centaurea candidissima," the purest white-leaved plant now grown, the whole edged with "Alyssum variegatum." It is very new and striking, and our English cousins can't do it much better, either at Sydenham or Kew; but this digression is out of place when on the subject of Cocoa Waste. Lest I should omit it, I will mention in regard to the vines struck at your request, I found that in the *sand*, with the same bottom heat, roots were pushed two or three days earlier than the same cuttings in the "waste," but by careful examination I observed that the "callus" was much larger and more robust in the waste than in the sand, apparently gathering increased strength for the start by reserving its forces until fully ready, and when they did start, soon passing by those struck in the sand, and, as you observed, maintaining their advance when under way so as to be easily appreciated as stronger plants.

I do not look upon this trial, however, as entirely conclusive, and must repeat it upon a more extended scale before recommending it positively; for during the experiments, what with press of other work at the time, I discovered once or twice that the cuttings in sand had been allowed to become rather dry. If the sand had been carefully kept as moist as the waste, the superiority of the waste might not have been so evident. It is conclusive, however, as to the vital point of *regularity* of moisture, and less care required in using the waste.

If we can obtain it in sufficient quantity at moderate cost, we shall, however, benefit more generally, I think, in adaptation for out-of-door purposes, as a mulch and fertilizer, than for the comparatively limited uses for green-house plants and for propagating material. In most of our country residences, evergreens are largely used in decoration, and in some few of the choicest grounds they are the decided and elegant feature; but in how few of them are they properly cared for! Here will come in one of the best uses to which the waste can be applied. Experiments now progressing favorably, will only require a severe winter to test them, and if they come safely through that ordeal, I can venture to promise an average growth one half greater, and in young trees fully double the annual growth made in the usual mode of planting.

Instead of allowing the thirsty sod to drink up all the light rains, the sod removed and replaced by the waste in a coating six inches deep from the trunk of the tree to the circumference of the outermost branches, is an exchange from an exhausting process to a fertilizing mulch. In this latter point I would observe, that after three or four years the waste becomes gradually darker, until it is almost black. When in this state it is very enriching, as the decomposition of the vegetable fibrous waste is by that time nearly complete, and assimilates very nearly in appearance to rich black loam. In this condition its fertilizing property is evidenced by the immense leaf growth of Geraniums, etc., at the expense of the blooms, at the same time still retaining its qualities as a retainer of moisture. This very quality, however, of retaining moisture, is the one point which I am (in our climate) a little uncertain about being to our advantage in a severe winter. The roots so completely fill the waste, that experience may show that, except for the most hardy varieties, the very point which makes it of value in our hot, dry summers, may be very prejudicial in wet, severe winters. Time alone can decide that point. And now, without exhausting the subject, I must certainly have more than exhausted your time and space, and you must curtail this note in any way you think best.

P. S.—I forgot to mention that I ordered the waste from Messrs. Hooper & Co., Covent Garden, London.

[Our readers will all feel deeply indebted to Mr. Townsend for having imported the "Cocoanut Waste," experimented with it, and brought it to public notice. Our "cousins" will probably be surprised to learn that they have been somewhat anticipated in discovering the utility of cocoanut waste for striking cuttings generally.

They, we believe, with the single exception of Donald Beaton, confined its use, until very recently, to mulching, and mixing with soil for Ferns and a few other plants. Mr. Townsend has done much more, as will be seen hereafter. In regard to the grape vine cuttings, we have placed them in a position to carry out the experiment to some decided results. What these will be, we can only at present surmise; but in due time the reader shall have all the particulars. We do not anticipate that the roots of your evergreens will be winter killed, unless they are really on the surface. Much less injury is received in this way than is generally supposed, except in the case of trees that are not altogether hardy. Much misapprehension exists on this subject. The roots of trees are always frozen, and it matters not whether they are frozen six inches or six feet from the surface, so long as the roots are ripe. We predict confidently that the roots of the evergreens growing in the "waste" will receive no injury from being frozen. Tell your lady friend that we shall take the heads of the "innocents" only as a dernier resort. They would require too much sifting. You have a right to know all the uses to which cocoanut waste may be put; at all events, you have a right to know what becomes of the hogshead you were so kind as to send us. We put it under a large chestnut tree in our pasture lot, where we thought it would be well protected. The head was partly knocked out, and our experiments began. In the afternoon, in passing by, we noticed the head of our favorite cow in the hogshead. We hastened to the spot, and found her licking her chops with great gusto. She had consumed quite half a bushel of the "waste," unless she had had some help during the day. But the "waste" was not altogether wasted; for the cow that night and the next morning gave an extra quantity of milk. So, you see, the milk was not all out of that cocoanut! That was our first experiment with "cocoanut waste."—Ed.]

THE CONCORD GRAPE.—REPLY TO D.

BY GEORGE HUSMANN, HERMANN, MO.

Mr. Editor,—In your July number I find an article on the Concord, by D., which seems to me to smack decidedly of a very casual local observation, and which, it seems to me, would serve to mislead your readers so much, especially as it comes endorsed with your opinion, that I can not help making a few remarks on it, to vindicate a grape which is at present planted more extensively in the West than any other, and *deservedly* so, notwithstanding what Mr. D. may say about it.

Mr. D., from the general tone of his remarks, seems to live in some cold nook of our Union, where even the Concord will not ripen; for it is plain that he has never tasted of a *ripe* Concord. Pray be quiet, my dear D., until I have explained what I mean. I do *not* call a grape *ripe* when fairly colored, but when it has attained its greatest excellence; and the Concord is one of those grapes which, indeed, color early, but which should hang a month longer to attain their full perfection; and this, it seems, it never comes to in the East. If Mr. D. and you, Mr. Editor, would come and visit us some time in September next, I will engage that you will go home with a better opinion of the Concord. You would then find it almost without pulp, the pulp having almost dissolved; of fine flavor, although *very slightly* foxy; thin skin, sweet, and, if not *best*, at least *very good*. Please do not, with your Eastern States, claim to be the *whole* Union. We here, in Missouri, have struggled hard enough against Secession to deserve at least a slight consideration at your hands; and if you condescend to acknowledge that the Western States also are a part of "our country," let the

Concord have its just dues here, as the *best grape for every body.*

This is a bold position to take for any fruit, but I take it after trying it for seven successive years, and after comparing it with about sixty varieties I have in bearing, and also after due consideration of pros and cons. Now let us see why:

1st. The vine is a strong, healthy grower, and will succeed in any soil, so as to give a fair crop under any treatment.

2d. It is entirely free from disease, and entirely hardy.

3d. It is, under proper treatment, a great bearer, and always ripens its fruit well.

4th. It has a fine, large, handsome bunch and berry, which sells readily in market, not because, as D. somewhat maliciously remarks, people do *not* know it, but because they begin to know it, and appreciate its very good quality. Our genial sun here does what D. makes a condition of the Concord getting into favor with him, it dissolves the pulp, and fills it, not exactly with Delaware juice, but with something which is not bad to take either, being sweet and luscious enough for most folks. Please do tell us, D., where you hail from, as a country where the Concord does not grow any better than you represent it must be not very far removed from everlasting "snow and cold fogs."

5th. It is a good *wine* grape, as it makes a wine equal, to my taste and a good many others, to the best Catawba, if not superior, and we pretend to know here what good Catawba is, having grown it for sixteen years. It also makes more of it than any other grape I know of, to the acre, as it has, when fully ripe, not only from three to four drops of thoroughly sweet juice, as D. has it, but about fifty to each berry, as it is nearly all juice.

I think this answers the question, what we can do *here* with such big fruit. As D. has seen fit to put the Concord and Delaware in juxtaposition, I will do so too, and give your readers a few samples of success in vineyard culture with both varieties.

In spring of 1861 I planted 350 vines of Delaware, on the best piece of ground I had in my vineyard. The vines I obtained of Dr. Grant, of Iona, and they were what I call good plants from single eyes. They were planted late in May, started finely, and were all I could wish until the latter part of July, when they were affected by leaf blight, dropped their leaves, did not ripen their wood, did not grow any worth speaking of last summer, and now, the third summer, the young canes are not over two feet high as yet. When they will bear will be hard to tell, although they have had good cultivation throughout.

After the Delaware I planted 500 Concord, on rather poorer soil. The plants were hardly worth that name, as I had sold my entire stock, and the remainder, such as I could not and would not sell to any body, were planted by me, being hardly as good as first-class cuttings. They all lived, however, made a good growth the first summer, and were entirely healthy. Last summer only one cane was tied up on each vine, which were cut down the middle of June by a very destructive hail-storm, when about three feet high. On these young canes the suckers started vigorously, and made very fair-sized vines. The remainder of the young canes I had not tied up were summer layered in July, and I had over 7,000 first-class layers from the 500 vines. This spring I pruned those I had tied up, somewhat in the same manner I would cut back a young tree, leaving three to six eyes or buds on each of the branches, and they are now loaded with as fine a crop of fruit as ever gladdened the heart of any vine-grower, and are making a strong growth of wood for next year's bearing. They will average 10 lbs. of grapes per vine, which, considering the amount of layers they produced, I think is a great yield for the third summer after planting. The grapes I can market readily at from 15 to 20 cents per lb., wholesale, and they would be worth just as much to make into wine. I leave you to draw your own inferences as to which is the most profitable grape.

I am sorry to say the Delaware has not

fulfilled its early promise here. It is certainly a fine grape, but seems to be subject to leaf-blight here, and a very feeble grower on its own roots. This, however, can be remedied by grafting on stronger growers, and we are still in hopes to find out a method by which we can cultivate it successfully. But I can not recommend it *here* for general cultivation.

In conclusion, let me say a few words in regard to D.'s very unjust cut at nurserymen. We have no difficulty here in growing the Delaware from cuttings; although it does not grow so readily as Concord and other varieties, it brings treble the price of them in the sale of the plants, and can, consequently, be grown just as profitably as the Concord by nurserymen. Norton's Virginia is, I suppose, the hardest vine to propagate I have ever tried; yet we recommend it for wine-making, *because it has real merit*, and we propagate it largely, too—even by the hundred thousand—and sell it as low as the Concord. Let me tell D. that there are other methods of propagating grape vines besides those he mentions, which some few of us happen to know and follow, and that there *are honest* nurserymen who would not think of selling a vine or plant *because* it is easy to propagate, but who aim to sell those from which they think their customers will derive the greatest benefit. Our friend D. would almost force us to believe that he lived in the most godforsaken corner of our broad land, where his whole surroundings consisted of cold fogs and rascally nurserymen, to judge from the tone of his article. Truly a pleasant neighborhood.

Now, Mr. Editor, I think that you and friend D., in justice to the Concord as well as to nurserymen, owe the far West a visit. It will be no more than simple justice to your numerous friends out here to come and see, and judge for yourself what suits us western people *here*. Do pay us a visit some time in September, and we will try and make you as welcome as "the flowers in May;" and I will even engage to furnish Concord grapes, which you can eat after the Delaware, without making a wry face.

Some other time, if not transgressing too much upon your space and the patience of your readers, I will send you a report on about sixty varieties of grapes, which I have been testing for several years.

[As Mr. Husmann is considered at the West a champion of the Concord, we are rather glad than otherwise that he has responded to D. We shall leave D. to make his own defense. We stated that D. was a Frenchman; he could not, as a matter of course, with his tastes and experience, be expected to rate the Concord as highly as the Delaware. We think Mr. Husmann has somewhat misapprehended D. We do not believe he intended to impute any dishonest motives to nurserymen. He states his belief that some of them try to sell most of that which they can propagate most easily; and this is true of other things besides grapes. It is quite natural that they should do so till the public are willing to pay them an extra price for what costs them extra labor. We will state a few things that D. will not be likely to state. He is in a region admirably adapted to grape-growing, and where the Concord will ripen perfectly. He has been brought up among vines, and has propagated more of all kinds than any two, or probably five men in the country; he has certainly propagated more Delawares than any dozen men among us. It must, therefore, be conceded that he knows something about propagating vines. He is a person for whose opinion on the subject of grapes we have much respect, though we may not always agree with him. Mr. Husmann states that he finds no difficulty in propagating the Delaware from cuttings in the usual way, and we are bound to believe him; and yet we know that D., on this point, states a simple fact that very generally holds good. We have time and again had old nurserymen come to us and acknowledge their inability to propagate the Delaware from cuttings in the open air, and some have failed for years to do it even with the assistance of a hot-bed, which should not be. Our own experience tends to the same conclusion. Though we have

raised some cuttings of the Delaware in the open air, we are, nevertheless, bound to accept the generally-admitted fact, that it is very difficult to raise in this way. There are other vines almost as much so. We find nothing to modify in our remarks appended to D.'s article. So far as the Concord is concerned intrinsically, there is not much difference of opinion between us, except that Mr. Husmann rates the Concord higher than we do, though he candidly admits that it is not first-rate. We think it is several removes from being first-rate. It is hardy, early, vigorous, productive, large, handsome to look at, pleases the eye, and therefore sells well in market. It is the latter point which makes it profitable to grow at present, and not its quality, which is only good, and not best. We have been familiar with the Concord since the day it was sent out. No grape, that we can remember, except the Charter Oak, was so universally decried on account of what was termed its "offensive foxy odor." At the beginning of this warfare against the Concord we were called upon, in an official capacity, to give our opinion of it, the specimens then before us, weighing about a pound to the bunch, having been furnished by the Messrs. Hovey. We have not got the volume by us to quote from, but our opinion, carefully made up, was substantially this: that the strong "foxy" odor of the Concord would, in a great measure, disappear under the influence of time and good culture, and that its large size, handsome appearance, earliness, and productiveness would make it popular and valuable as a market fruit. We leave Mr. Husmann to say how far our predictions have been fulfilled. We have seen the Concord under a variety of circumstances, and have had it sent to us from many different localities, but we have never seen it first-rate. If any of our readers during the coming season should think they have it in this condition, we shall esteem it a special favor if they will send us a sample. If you can not grow the Delaware, Mr. Husmann, and can grow the Concord, the latter, of course, is the grape for you; but for those who can grow both, the Delaware will prove to be the most profitable, supposing both to be grown in the best manner possible. We appreciate fully the labors of our Western friends in the great cause of grape culture. So far from saying a word to dampen their ardor, we esteem it a privilege to be a co-worker with them. In this good work, for which you must admit we have done something, we bid you all Godspeed. One word more. Your invitation to visit Hermann is put in such a kindly spirit, that we not only thank you, but promise to accept it if we can find it possible to do so at the time you name. What with grapes, grape juice, and grape talk, we could anticipate a most delightful time with you and other genial spirits whom we should doubtless find there. But one condition: we intend to make the Delaware thrive in Hermann, and you must do nothing to prevent us.—Ed.]

LEON LE CLERC DE LAVAL PEAR.

Synonyms { LEON LE CLERC. / BLANC PERNE.

BY P. BARRY, ROCHESTER, N. Y.

It is stated by M. Bivort, in the "Annales de Pomologie," that this pear is one of Van Mons' seedlings of 1816, and fruited the first time in 1825. Named by Van Mons in honor of M. Leon le Clerc, who was himself a pomologist.

It has been frequently confounded with the "Van Mons' Leon le Clerc," which was raised by Leon le Clerc in 1828, and named "Van Mons." This latter fruit, the "Van Mons of Leon le Clerc," though one of the largest and finest of all pears when perfect, is likely to be abandoned in this country on account of the unhealthy character of the tree

and the tendency of the fruit to crack. We can well remember the sensation produced by it on its first appearance in the catalogues; but, as in many other cases, the hopes it awakened have been realized in a very limi ed degree.

The Leon le Clerc de Laval has also failed to come fully up to expectations, but is nevertheless a valuable fruit. We expected, from the foreign descriptions of it, that it would be a table fruit, melting or half melting, and a very long keeper. After many years of experience, we find that it is rarely if ever more than *half* melting; but of that class of pears it is one of the finest in cultivation. It is a noble pear in size, shape, and color, and keeps the year round. We have them now (June 18) in fine condition, fit for dessert even, and to all appearance they will keep sound until the early pears are ripe.

The "Annales de Pomologie" describes it as "a superb fruit, and perhaps one of the best of its season, (May and June,) and that it requires a warm, light soil."

Fruit large or very large, three to four inches long, and about the same in diameter at the broadest part, obovate or obtuse-pyriform, somewhat resembling the Beurré Diel. *Skin* thick, of a bright golden yellow at maturity, clouded and dotted thickly with cinnamon russet. *Stalk* one and a half to two inches long, curved, moderately stout, enlarged at the base, and inserted without depression. *Calyx* rather small, open, in a broad, shallow basin. *Flesh* white or yellowish white, fine, half melting, juicy, sweet, and agreeably perfumed. Season April to June, retaining its color, plumpness, juice, and flavor remarkably.

Tree a vigorous, handsome grower on both pear and quince stock; hardy, and an abundant and early bearer.

The synonym "Blanc Perné" originated either in France or in the Island of Jersey. We received it from England only under this name. The French are in the habit of attaching names of their own to new Belgian varieties; as, for instance, in the case of the Belle Lucrative, the original name of which, given by Esperin, was "Seigneur," now superseded almost every where.

[We had applied to Mr. Barry for some particulars in regard to the habit of growth, etc., of the Leon le Clerc de Laval, figured in our last number; but being from home, he did not send the above till after our form had gone to press. We therefore printed our own description. Mr. Barry's, however, contains some interesting particulars in addition to what we gave, and we therefore print his article this month entire. His description of the fruit and our own will be found substantially the same.—Ed.]

GOOD BUILDING SITES IN THE COUNTRY.

BY MYRON B. BENTON, AMENIA, N. Y.

In looking upon the fine residences with which men of ample fortune have adorned the country, the farmer is profoundly impressed with the great outlay required to make and keep such luxuries. One of moderate pretensions will require annually, in the matter of men's labor alone, more than his farm of a hundred acres or more would to keep it in a good state of cultivation. The very pleasure which he has in walking over such grounds is alloyed with regret that it is so entirely out of his reach to create such a landscape around his own dwelling.

This out-door upholstery is of the most delicate kind, and requires the most unremitting care to preserve it. If it were so much parlor furniture, as carpets, curtains, pictures, statuary, etc., though the first cost might be greater, yet in the end it would be far cheaper; for all such can be inclosed from the weather, and preserved year after year with but little comparative labor. But

it is not so when we undertake to assist Nature in her works. She delights in constant changes. She is never satisfied without her pets are either growing or dwindling out of the way. Every thing must be in motion. So the lawn is forever needing to be shaved, the flower-beds weeded, the shrubbery trimmed, etc.

The amount of labor which the farmer, who has his living to produce from his farm, can lay out in the grounds immediately surrounding his dwelling, is necessarily limited. But the question which we should consider is, Does he make the most of his circumstances? does he produce the most attractive residence that his means and the natural features of his farm will admit of? The answer may be found in noticing the building sites usually selected by farmers. As a general rule, they are not situated among the best specimens of the natural landscape, which would be more beautiful to have surrounding the dwelling than any thing which money can produce. Imitations of these are often attempted, and always with but partial success. Observe the artificial rock-work, which is so expensive, and compare it with some of Nature's own work of that kind, which almost any farmer—who does not live upon a dreary western level—can show upon his own farm. The water scenery of a park is one of its most expensive adornments, and is often the most unsuccessful. If there be any beauty in water it is in its clearness and freshness; but in very many fine grounds it is brought in a limited quantity with great trouble from a distance, and distributed into fountains and ponds, which it makes one sick at the stomach to look at, it is so green, stagnant, and, in fact, filthy.

If one can place his house where Nature has already supplied these attractions—her picturesque rock-work, her streams, lakes, and all that irregularity which gives the charm of variety, how much more is obtained than a great outlay will create! I fear this is not often enough thought of. The building site generally selected, if not a dead level, is entirely without any marked features of natural landscape. The house has been subjected to military drill, and has obeyed the "right about face" of the street, from which it is separated by the inevitable white picket fence.

But yet, perhaps, in a situation which would have been equally convenient for the practical purposes of the farm, there is a spot where the house could have been built so as to include in its near surroundings some of the sweetest beauties of the landscape: the shore of a clear, azure lake, perchance; a winding stream, or a little rivulet, with its string of musical cascades; or, perhaps, some massive ledge of broken rocks, woven with vines, shrubs, and the coiling roots of trees that crown its summit, or some last remaining specimen of the primitive forest, or a deep shady glen filled with wild-flowers; or a little green hollow, cosily shut in from the rest of the world. A combination of some of the best of these may be found upon most farms; and the farmer, though he may enjoy their beauties at a distance from his dwelling, can reap tenfold more delight if he lives in their midst. The part which he adds beside his dwelling may be very insignificant; some shrubbery which requires but little care, a few choice flowers, and trees. He needs trouble himself little with long gravel walks, which must be constantly hoed and trimmed; for the grass, except in parts most used, is better to walk upon; and above all, as I have before remarked, let him restrain any inordinate propensity to set out trees. The plot of a half acre, or acre, which perhaps lies between the house and a lake or river, and is inclosed on one side by "rock-work" and on the other by a grove, glen, or rivulet, should be unbroken. Leave that for the sunshine, and do not thrust into it the eternal rows of Horse-Chestnuts, Locusts, Ailantus, etc. The farmer's Buckeye Mower will keep this little lawn in good order with slight labor.

I am confident, that if we farmers but rightly select our building sites, we can maintain beautiful grounds around our dwellings, with no extra expense, and which might well be the envy of many a proprietor of a residence which has cost its tens of thousands.

[Mr. Benton has hit upon a very fruitful theme, and his remarks are to the point. Nine tenths of our farmers locate their dwellings on the very worst spot the farm presents, so far as landscape beauty is concerned. It may be doubted, indeed, whether such an idea as landscape beauty ever enters their heads in locating their homes. Nearness to the road is the prevalent idea. We think they might, by following Mr. Benton's suggestions, obtain all the conveniences they now enjoy, and at the same time surround themselves with a degee of rural beauty which would greatly enhance all the enjoyments of life, and this, too, without any greater outlay of labor and money than they now indulge in, and in some cases not so much. We commend Mr. Benton's remarks to that class of readers for which they were especially designed.—Ed.]

EDITOR'S TABLE.

To Contributors and Others.—Communications, Letters, Catalogues, Periodicals, Remittances, Packages by Express, Advertisements, &c., should be directed to Mead & Woodward, Editors and Proprietors, 37 Park Row, New York. Exchanges should be addressed to "The Horticulturist."

Late this Month.—We shall probably be late with the present number. It is owing to the fact that the city of New York, for several days, was a prey to the mad acts of a vile and ruffian mob, who murdered our citizens, destroyed public and private property, closed up many of our manufacturing establishments, and set all law at defiance. New York is covered with mourning, shame, and disgrace. Our printer was compelled to close his establishment, and work on the Horticulturist was suspended for a week. Such scenes, we hope, will never be enacted here again.

Corrections.—It unfortunately so happened that we were unable, last month, to give to the proofs of the magazine the personal attention we usually bestow upon them, and which is absolutely necessary to secure their accuracy. The consequence has been the occurrence of errors, some of them odd enough. A few of these it becomes necessary to correct. The last two letters were printed without our remarks being appended. These omissions are supplied in the present issue. It becomes necessary, too, to lessen a little the magnitude of Royce's Peach tree on p. 221, second column, line six from top. It will be quite large enough if reduced to 38 inches in circumference instead of 38 feet. Royce, of course, is in no way responsible for the enormous size of that Peach tree. In the same article, line 19, column first, read "alburnum" for "albumen."

Fair of the American Institute.—We are glad to learn that the American Institute has determined to hold a Fair this year in the month of September. This will be its Thirty-fifth Annual Fair. The Horticultural Exhibition will take place during the last week of the Fair. Articles for this department must be delivered at the Academy of Music, in Astor Place, Fourteenth Street, on Wednesday morning, September 16. A liberal prize list has been provided. This will be a good opportunity for pomologists to show their fruit, and especially for nurserymen. The building selected is well adapted to the purpose, and is conveniently located. We bespeak for the Institute a liberal support from fruit growers and florists, as well as from the public. We shall be glad to see the American

Institute regain its former prestige, prosperity, and usefulness, and all this can be done with judicious and liberal management.

Death of Dr. John A. Kennicott.—We regret to learn of the death of this veteran pomologist. He was esteemed by a large circle of friends for his manly worth, and not less for his labors as a pomologist. He was one of our Western pioneers in the cause, and did a good work in his day and generation.

Ornamental-leaved Bedding Plants.—Having grown Coleus Verschaffeltii in the border last season, and found it to be admirably adapted to the purpose, we recommended it to be grown as a border and bedding plant, and we are pleased to find our recommendation pretty extensively followed the present season. Mr. Townsend, of Bay Ridge, elsewhere speaks of the striking effect of a bed of Coleus Verschaffeltii, with Centaurea candidissima as a center piece, and Variegated Alyssum as an edging. Since receiving Mr. Townsend's letter, we have seen this bed, and we feel called upon to say that the effect is charming; in its style we have never seen it equaled. The center piece, Centaurea candidissima, occupies two feet; surrounding this is the Coleus, four feet in breadth; and then the edging of Variegated Alyssum, a foot in width, the bed being twelve feet in diameter. The contrast is exceedingly beautiful. This bed is fully exposed to the sun, which the Coleus bears well; its color, however, is not quite so dark as another bed somewhat shaded, but it is more brilliant and metallic. The Coleus is destined to become a very popular plant.

Near the first-mentioned bed of Coleus is a circular bed of Scarlet Geranium, edged with Sedum variegatum. The effect is very fine. We are inclined to believe that this Sedum will prove to be hardy in some portions of the country. We know that it will bear being frozen pretty hard. This point will be fully tested next winter. Speaking of ornamental-leaved bedding plants, we wish to say here, that our experience with Fuchsia *Meteor* thus far, leads us to believe that it will make a beautiful bedding plant. It bears the sun very well. It should be planted from twelve to eighteen inches apart, and frequently pinched. The beauty of this plant is in the new growth; close planting will mass it, and pinching will produce a constant young growth. We suggest to Mr. Townsend that he try the Meteor as a bedding plant.

Agricultural Department—Law relating to Seeds, Cuttings, etc.—The law relating to seeds, etc., which restricted the weight to *twelve* ounces, has been amended so as to read as follows: "The weight of packages of seeds, cuttings, roots, and scions to be franked, is limited to *thirty-two* ounces." This increases the facilities of the Department of Agriculture very materially, and we are glad to see it, because we think we can perceive on the part of Mr. Newton a praiseworthy desire to render his department a substantial benefit to the country, as it might and should be. We were indebted to him last spring for a collection of valuable seeds. We had determined to say nothing about them till we had proved them, as we had seen so many sent out by the old department that were false and worthless. We must now do Mr. Newton the justice to say that he manages things very much better, and much to his credit. We shall be very happy, under such circumstances, to give him a hearty support. We understand that some valuable cuttings and plants will be distributed next fall. We would suggest that such as are new, and thought to be valuable, be distributed in a discriminating and judicious manner, so as to place them in the hands of those who are capable of testing their value, and who are willing to give the necessary time to it. There will be enough of other things, doubtless, for the great indifferent mass who feel no interest in testing novelties. Distributed as such things have usually been, they are entirely lost to the country. Will you be so good as to think of this, Mr. Newton?

Hardy Ornamental-Leaved Trees.—We are indebted to Messrs. Ellwanger and Barry, Rochester, N. Y., for a box contain-

ing the foliage of their collection of hardy variegated-leaved trees, the study of which has afforded us a great deal of gratification. Some of them we have growing, and most of the others we have seen; but there are some that are entirely new. Many of our readers will be surprised to learn how many hardy trees there are of this class. We append a list of those sent by Messrs. E. and B. Magnolia acuminata, (Ellwanger and Barry,) Fraxinus Pontue, F. salicifolia, F. aucubafolia, Symphoricarpus, Salex caprea tricolor, Horse Chestnut, Apple, Acer tricolor, Salisburia, Prunus padus maculata, Mountain Ash, No. 1, (Ellwanger & Barry,) Mountain Ash, No. 2, (Ellwanger & Barry,) Cornus macula, English Oak, Turkey Oak, Weeping Thorn, New Silver-striped Maple, Prunus domestica alba, P. domestica aurea. To this list might be added the Purple-leaved Beech and some others. We shall attempt to show in wood cuts the markings on the leaves of these specimens, and give a description of each. The variegation on the Magnolia acuminata is very fine.

CATALOGUES, ETC.

C. C. Abel, New York City.—Price Current of different sorts of Dutch Flower Roots, cultivated and sold by P. Van Waveren, Jr., & Co., Hillegom, near Harlem, Holland.

Cutters' Nursery, Beverly, Adams Co., Ill.—Catalogue of Fruit and Ornamental Trees, Vines, Plants, Shrubbery, etc.

Transactions of the Essex Agricultural Society, Massachusetts, for the year 1862.

Husmann & Manwaring, Hermann, Mo.—Descriptive Catalogue of Fruit and Ornamental Trees, Grape Vines, Shrubs, Roses, and Plants. 1863, 1864.

Proceedings of the Missouri State Horticultural Society, at their Fourth Annual Meeting, held at St. Louis, January, 1863.

CORRESPONDENCE.

Mr. Editor:—In the January number of the Horticulturist, for 1862, an article was published, over the signature, J. S. Walter, stating that he was very much perplexed by the conflicting statements and opinions of nurserymen and dealers in regard to what kind of grape roots to buy, and asking your opinion or advice whether he had better buy pot plants with a mass of very small hair-like fibers, or plants with large roots of from one to three feet long, but said nothing about the fibers; and that it was claimed by the latter grower that the small fibers of the first vines would rot or disappear after being transplanted. And as it was stated in the remarks that these opinions of "Doctor" No. 2 were not correct, I thought I would give you the result in the growth of the two classes of vines; and, in order to do so, I send you some cuttings of the vines purchased of "Doctor" No. 2. You will see the size of the wood, and the canes were nine feet long; while those purchased of "Doctor" No. 1 were not more than two feet, and small at that. Recollect that these cuttings are Delaware, the plants one year old, from single eyes. If you can beat them in your part of the State, I should like to see them, for I never have seen the like of them in this part of the country before.

And now for the "very small fibers." I visited Mr. W.'s place in the fall, and he dug up one of those pot plants to examine the roots; and behold, the roots were bare, the small fibers had disappeared, and Mr. W. expressed himself satisfied.

Yours truly, J. Craine.

Lockport, N. Y., March 11th, 1863.

[Your object seems to be to controvert our position, but in this you are not successful. It would seem, also, that you have not read carefully the remarks we appended to Mr. Walter's article. We stated distinctly that we would not buy the vines No. 1. If they have failed to grow well, they have only sustained

our position. What he described as hair-like fibers we supposed to be already dead, and our supposition turns out to be correct. That was our principal reason for saying that we would not buy such vines. Every position we took in those remarks we know to be correct. We have experimented with the roots of plants as no other man in this country has, and claim to know something about them. We stated, that in the sense evidently intended by Doctor No. 2, secondary roots do not die, and we repeat the remark. There is no doubt about it. The hair-like fibers described by Mr. Walter are mere abortions found in badly-managed pot-plants; they do not die; they are already dead. They do not come under our definition of secondary or fibrous roots, as you may learn by previous remarks of ours. The wood you sent was large and good. You may rest assured that the vines described in our "Hints" are the best that can be planted.—Ed.]

Mr. Editor:—I take this opportunity of soliciting a little information or advice. I am situated on a bleak, high prairie, my western boundary being nearly on the summit of the highest hill around here. Right on this highest ground, with an eastern declination, I intend planting a pear orchard; but first I want to raise a good living fence on the western side, for a screen and protection from the keen, biting winds of winter. Supposing that young Osage plants are not now obtainable, I have procured some Honey Locust seed, and also some seed of the Buckthorn, which I have in small boxes mixed with sand and buried in the soil, for the easier germination in the spring. I have no experience with either of these plants. I wish to know which you think preferable. Will the Honey Locust bear the shears well? Besides these, I have the Gray Willow (yearling) and Black Walnuts, three years old, both fast growing with me. How will it do to set either of those trees in the fence rows some four or five feet apart, and then pile in with the Honey Locust or the Buckthorn, six or eight inches apart? Will the shade of the Willow or the Walnuts, which I would let grow up heavenward as fast as they will, be injurious? Inside of that row, which would be my fence and protection, I would plant my screen, say four or five feet from the outer row or fence. This I would have of evergreens. I can get good, well thickened up trees, of the American Arbor Vitæ, very cheap. Would it not be a good plant for the purpose? I have a lot of Red Cedar on my grounds; also a few Norway Spruce, Austrian Pines, White Pines, and several other sorts, but not enough of any one kind but the Red Cedar; and if I buy, I can get nothing so cheap as the American Arbor Vitæ. Which is the most vigorous growing, the Arbor Vitæ or the Red Cedar? The latter browns badly with me in winter, while the former is hurt but little. Now, Mr. Editor, I shall esteem it a favor if you give me some instruction as to how I can best, under these circumstances, procure the desired screenage and protection, what trees I had better use, what distance they should be set, etc. Is it best to set the orchard all of standards, or of standards and dwarfs mixed, and what distance do you think best? I find my trees and grape vines are injured a good deal from southerly and southwestern winds, in the growing season. Would not a screen on the south be good, too? Should I use evergreens there, or only deciduous trees? One question more, if I have not already given you too many. Which is the better early grape, the Hartford Prolific or the North America? If you will have the kindness to reply to these questions in an early number of your excellent paper, you will greatly oblige,

Yours respectfully,

William Fare.

Libertyville, Lake Co., Illinois.

[The Honey Locust and Buckthorn both make excellent hedges. The first is most ornamental, but we think the last will grow best with you. You can safely use either. The Honey Locust bears the shears well. We would not use the Willow or the Black Walnut any where near an orchard. The roots of the Willow would prove a nuisance if the trees were allowed to grow up as you

propose, and the shade of the Walnut is decidedly bad. Substitute the Maple and the Norway Spruce, and you can carry out your idea effectively. The American Arbor Vitæ is a good plant for your purpose. The Red Cedar we do not think much of. The Norway is excellent. The Arbor Vitæ is a much more rapid grower than the Red Cedar. For a screen, we should plant (as you have the trees at hand) Maples, Spruces, and Pines, intermixed, about six feet apart; and for a hedge, the Arbor Vitæ, about two feet apart, so as to allow them to make a good-sized hedge. We do not mean two feet from the branches, but two feet from the trunks. We should set standards and dwarfs together in the orchard, placing the standards twenty feet apart, and the dwarfs between them, all in quincunx form. Let your trees branch low, and keep them well cultivated. A screen on the southwest of your vineyard would answer a good purpose. Make it of evergreens. The best early grape is the Creveling. The Hartford Prolific is better than the North America. We regret that your questions have not been sooner answered.—Ed.]

Peter B. Mead, Esq.:—*Dear Sir,*—The Rose Bug appeared this year in vast numbers, and has been very destructive to fruits, fruit trees, and vines, especially to the Grape. They made their appearance about the 15th of June, destroying whole bunches by eating the blossoms. The late flowering kinds suffered the most, as the bugs increased wonderfully after the second day. We killed them by wholesale day by day, but still without any apparent diminution of numbers or quantity. It was not uncommon to collect a handful from a single bunch of grapes.

Last year my Catawba, Diana, and To-Kalon grapes were attacked with mildew and rot on the 20th of July, which I think was arrested by an application of one part sulphur and nineteen parts air-slaked lime, well mixed, and thrown on to the vines immediately. This season I thought best to anticipate the disease, and apply the remedy as a prophylactic; accordingly, I had an application of sulphate of lime (gypsum) made to my Catawbas on the 23d of June. We had then been engaged for nearly a week in picking and killing Rose Bugs, averaging ten to twelve hundred every morning, from seventy-five vines, of which we kept an account.

After applying the gypsum freely to the leaves, fruit, and ground, on the following morning, we found none of the long-footed insects; the second day none, and the third day none. A few were seen flying, and when they alighted were uneasy, and did not remain. To be certain, I examined six rows of vines carefully, and found three Rose Bugs. I then went over again to be sure that I had missed none, and found one more, making four bugs on 188 vines. Now the question came up, May not the Rose Bugs have disappeared as suddenly as they came? but I found them in vast numbers on the cherry trees and rose bushes. A clever neighbor living half a mile distant, had informed me that he was infested with them a year ago, and I made him a visit to inquire if he had any to spare. "Yes," he replied, "here are a couple of quarts that I have just put an end to," holding up a tin vessel in which was soft soap dissolved in water for that purpose. But I said, "I want living bugs;" and sure enough, I found them on his vines in incredible numbers.

The Rose Bugs continue abundant up to the middle of July, but their time is now short. If my experiment is of any value, please make it known through the Horticulturist, that all may reap the benefit.

It may be interesting to inquire where these myriads of insects come from, and what will be the end of them. Do they migrate? and if so, may we expect them to leave us altogether?

I may remark that, after the application of the sulphate of lime to my grapes, the fruit suddenly enlarged, and the vines showed great vigor and apparent healthiness.

I hope to escape the rot. We have had a period of wet weather followed by great heat, such as accompanied the mildew and rot last year. A friend remarked that the atmosphere was like that of a laundry.

I have great satisfaction in growing and training my vines this season according to your advice in your "Hints on Grape Culture," which I find saves a vast deal of labor, and in these times, that is an important consideration. Thus far I have managed to do all the tying, trimming, and pinching of two acres, with the assistance of a boy during the bug season. W. A. Woodward.

Vail's Gate, Orange County, New York, July 15, 1863.

[We are much obliged to you for your communication on the Rose Bug, much the greatest pest, in some localities, that the fruit grower has to contend with; for it spares nothing. Apples, Pears, Cherries, Plums, Grapes, etc., all fall a prey to it. It is so tenacious of life, that ordinary means have hitherto failed to destroy it; nothing but actually crushing the life out of it has proved effectual. Where neighborhoods combine to destroy it in this way, the evil may be subdued. If your remedy should prove efficacious, it would be an inestimable boon to the whole community. It is simple and cheap, and if not destructive to the Rose Bug, it is to the mildew when early applied, and it is also good for the vines; so that its application will in no case be a loss. We are disposed to think well of it. A thick coating of it on the leaves and fruit we should think would prove annoying to the Rose Bug; and if it did not kill them, might drive them elsewhere. Even the least immunity from this pest would be regarded as a blessing. We hope the sulphate will be tried, and duly reported on, by many of our readers.—Ed.]

Messrs. Mead & Woodward,—I am not sure that you answer questions, in your pages, in the manner of the *American Agriculturist*. If not, let this pass; but if you do, I should like to hear what you may say of the case described.

You may know that great difficulty has been experienced in making fruit trees, such as apples, pears, cherries, etc., grow in Minnesota. The failure is attributed to the cold, and, indeed, to a great variety of causes, not many of which seem to be entitled to much respect, except that of cold, and the facts in relation to that are so singular as to lead me to suspect that the *severity* of the cold is not the cause, nor certainly its *duration*. For surely the winters here are neither so long nor so cold as those of several other places where these fruits flourish in perfection.

I am, indeed, a novice, and very green in horticulture, and as such I ask leave to make the following suggestion, and ask your opinion of it. I am already preparing to put it to the test the coming fall, and if it be worthless, I should like to cast it aside, and try something else.

My suggestion is this: The experiments hitherto made in Minnesota have been with trees and seed procured from a latitude where those fruits have a longer growing season than they have here; consequently, the young growth of the tree is caught by the frost and winter's cold before the wood is fully matured. Trees adapt themselves to the seasons of the latitude where they grow. In Southern Ohio, Indiana, and Illinois, they are like the corn of those sections, growing slowly and for a long time, and so proportionally further north. We know we can not raise the corn here which grows profitably in Middle Illinois. Why should we be able to produce their apple trees? If there be any force in this suggestion, we need fruit trees whose habit is to grow rapidly, like our grains, and mature fully before winter, or rather cold weather comes on. Will it not be necessary for us to select such trees, and those only, as are observed to possess this habit? or, in other words, to get our fruit trees from Vermont, or Maine, or, better, from Canada?

And as none of these fruits come true to seed, would not the most expeditious way of getting fruit trees that will live, be, to plant the seeds freely, and selecting such as appear to conform to the requirements of our season, cast the rest away?

What do you think of the suggestion? I do not expect you to answer me, except in a way to enrich your journal. Joshua Sweet.

Fort Ridgely, Minnesota.

[We very gladly welcome you to our

correspondents' column. We cheerfully answer questions. The cold, no doubt, is an obstacle to the general success of fruit culture in Minnesota; but shelter is the great want of that country. Provide this, and select such kinds of trees as mature their wood early, and fruit will become abundant in Minnesota. In new countries, too, the soil is sometimes naturally so fertile as to produce a redundant growth in some kinds of fruit trees, and the wood fails to ripen. In such cases it is very generally winter killed. Your course of reasoning is sound. So far from advising you to abandon your proposed experiments, we would urge you to go on with them. Very few are willing, or have the courage, to embark upon a course of experiments so well calculated to benefit the world. You may have much or little success; but if you originate only one new fruit perfectly adapted to your climate, you will have made the whole world your debtor. Your seed should not be gathered at random, but carefully selected with reference to the object you have in view. You no doubt understand that many years will be required to obtain results from experiments like these; but you will not be discouraged when you reflect upon what has been done in Ohio, Illinois, and elsewhere. You should not, however, confine yourself to planting seed alone. Orchard planting should form a part of your experiments. Prepare the ground thoroughly, provide abundant shelter from the prevailing cold winds, and select the best trees you can find. If you get them from the East, we would advise you to plant in the spring rather than the fall, for the simple reason that they would probably be lifted before the wood was thoroughly matured. It may be of some assistance to you if we add a short list of kinds that we think it would be safe for you to plant. Of Apples, we may mention American Summer Pearmain, Red Astrachan, Early Harvest, Large Yellow Bough, Fameuse, Gravenstein, Ben Davis, Rambo, Swaar, Rawles' Janet, Peck's Pleasant, Danver's Winter Sweet. Of Pears, Bartlett, Belle Lucrative, Dearborn's Seedling, Flemish Beauty, Lawrence, Sheldon, Seckel, Buffam, Beurré Diel, Easter Beurré, Louise Bonne de Jersey, Urbaniste. Of Cherries, Belle de Choisy, Belle Magnifique, Late Duke, May Duke, Reine Hortense, Kentish. Other kinds we fear you will not be able to grow, but you might try Black Eagle, Black Tartarian, and Coe's Transparent. For Peaches you can rely much on your seedlings. They fruit young, and if the pits have been well selected, you will be quite sure to have some good kinds. Still, you might plant Cooledge's Favorite, Crawford's Early, Crawford's Late, Early York, and Hale's Early, the last being a new peach which has impressed us very favorably, and which we think is better for you than many others. Grow your Peach trees low, and throw some brush over them on the approach of winter. Of Plums, the following will probably be best for your purpose: Coe's Golden Drop, Huling's Superb, Imperial Gage, Green Gage, McLaughlin, Washington. Of Grapes, Delaware, Creveling, Concord, which may be laid down and covered during the winter. Of Strawberries, Hovey, Longworth's Prolific, Wilson, and Downer are among the hardiest. Cover them with coarse litter before the ground freezes hard, but do not make the covering thick. This, we think, will do for the present. We have selected for you such kinds as have done very well under conditions similar to yours. You may not succeed with all, but this can only be determined by actual trial. We shall be glad to know that there are many others who are willing to venture something for fruit culture in Minnesota. If those who have already made trial would furnish lists of such kinds as have done well, they would do the public a good service.—Ed.]

Mr. Mead:—Please tell us, in your next number, the best direction to run the rows in the vineyard. Rufus Conant, Jr.

Provincetown, Mass., July 9, 1863.

[We think we have already done this in our "Hints." On level ground, the rows should run east and west. On hillsides the rows must run at right angles with the slope of the hill.—Ed.]

P. B. MEAD, ESQ.:—*Dear Sir,*—We are all very much interested in the correspondence monthly published by you in your valuable periodical. I wish to add my mite to the good cause. This county is known over the state, and, in fact, over the entire West, as *the* Nursery County of the state. We have five large nurseries in this place. The largest, covering over 240 acres, is owned by F. K. Phœnix. The next by Overman and Munn, covering about 160 acres. The other three are smaller, but being constantly enlarged. This season Phœnix has sold over $150,000 worth of fruit trees. Grapes are largely cultivated in this place. Several quite large vineyards have been planted in the last two years. Some three or four smaller ones have been in being for the last four years. The largest of these is one owned by Dr. H. Schroder, containing about five acres. Grapes look well this year. Small fruits are abundant, but hardly as much so as last year. Inclosed you will find a short history and description of a new and (we think) very valuable seedling strawberry, originated by the above-mentioned Dr. Schroder. The Dr. will send you plants this fall.

Respectfully yours, W. H. S.

Bloomington, McLean County, Illinois, June 17, 1863.

The "Old John Brown," Dr. Schroder's New Seedling Strawberry.—This new and *unequaled* variety of the Strawberry is the result of a cross between the "Wilson's Albany" and the old "Chilian." The seeds were planted by Dr. H. Schroder in 1856. Out of several hundred plants, this variety was selected and named by the Doctor in 1858. That fall he had twenty-seven plants. They were allowed to fruit but little in 1859. In the fall of 1860 he planted out a little over 500 plants. In 1861, '2, and this year, he had an immense crop of the finest berries ever seen in these parts. The flowers are *perfect*, and appear here at least ten days before those of the "Wilson." Last year they were fully ripe on the 17th of May, and this year on the 20th of May. Since that time up to the time of this writing (June 17th,) he has gathered several bushels daily, and the promise is yet good for fruit for at *least* a week or ten days. The plants are wonderfully prolific, and the berries immensely large, many being from four and a half to five and a half inches in circumference. Fruit, broadly conic, pointed. Color, light crimson. Flesh tender, sweetish, but not as much so as the Hovey as raised here. Flavor, far superior to any other variety known here. W. H. S.

[We deem our correspondence by no means the least valuable part of the magazine, and we are always glad to know that it is read and appreciated. Those who pass it by lose much that is useful and entertaining. We were aware that a considerable nursery business was done in your county, but its extent, as you present it, exceeds all that we had imagined. But you have an immense and beautiful country to make fruitful, and the nursery business is not likely to increase too fast for many years yet, provided the right kind of stock is grown. We are glad to know that you are planting grapes largely. You will find them profitable for meat as well as drink. We hope Dr. Schroder will not forget to send us the Strawberry plants. Your description leads us to conclude that it has much merit, and we are anxious to give it a place in our trial bed. Is the Dr. sure it is a cross between the Wilson and the Chilian?—ED.]

P. B. MEAD:—In constructing hot water apparatus for heating green-houses, where the tank is used in place of pipe, could the tank be constructed of cement, or would the hot water have a tendency to injure it so as to render it incapable of retaining water, as in ordinary cisterns? A. FURNAS.

Clayton, Hendricks Co., Ind.

[A tank may be constructed of cement without any fear of the hot water injuring it. A good plan is to build the tank of brick laid on blue stone, the brick to be laid in good water cement, and then the whole tank washed with cement, inside and out. The

brick may be laid on thick plank instead of blue stone, but the latter is best. A good coating of linseed oil laid on the cement will be certain to make the tank all tight; but it is a pretty expensive article to use in these times.—Ed.]

Mr. Editor:—I see an article in a late number of the Horticulturist, the writer of which takes the ground that it is injurious to an orchard to plow the ground after the trees are planted. This idea is so at variance with our western notions of orchard culture, that I would like some explanation. My own rule has been to put the plow in as deep as I could, and never mind if it did break some of the roots of the trees; they seem to grow all the better for it. If it injures trees to plow among their roots, is it not bad practice to plow at all when there is any crop in the ground? We plow corn when the roots interlace across the rows, and the more we plow it the faster it grows, and the bigger the ears get. Is it a matter of opinion merely, or a difference of soil and climate, or what is the matter? H.

Marshall Co., Ill.

[It is true that a correspondent took the ground you name. Old, decaying orchards have been plowed at our suggestion in many different places, and always beneficially; hence we can not appreciate the fears of those who argue that much damage will be the result of plowing an orchard. Like you, we can not perceive why it should injure a tree to cultivate it any more than a crop of corn. We try to treat our trees and corn alike, and are benefited in both just in proportion as we do it faithfully. Others are also, and we think all would be.—Ed.]

Mr. Editor:—As the season is approaching for planting new Strawberry beds, perhaps you will favor me and other readers of your magazine with a select list of varieties for family use. I wish to extend the season as much as possible by planting both early and late varieties. My soil is a sandy loam. Is such a favorable one? What preparation shall I give it? I can get an abundance of leaf mould, but other manure is a scarce article. Which do you consider the best, fall or spring planting? H. W. F.

[We are glad to help you with one of our favorite plants. We will answer your questions as they are asked. For family use you should plant nothing that is not very good. A few choice kinds will yield you more satisfaction than many indifferent ones. For amusement you can grow a great many more. The following you can buy at reasonable prices, and they are all very good family berries. We purposely omit some of the most recent. Jenny Lind, Boston Pine, Hooker's Seedling, Burr's New Pine, Ladies' Pine, La Constante, Hovey's Seedling, Triomphe de Gand, Longworth's Prolific, Bonté de St. Julien. A sandy loam is an excellent soil to grow the strawberry in. Spade it up two feet deep, and mix with it an abundance of leaf mould; nothing is better for the strawberry. A top dressing of unleached wood ashes will be good. If you have none, get some potash sweepings from the inspector's office. We consider early fall planting best. Your ground should be prepared now. Let the weeds get just out of the seed leaf, and then cut them off with a *pushing* hoe. Run it about an inch beneath the surface. This will save you much trouble in subsequent weeding. If your ground is in grass, turn the sod well under, and kill all the larvæ of the May beetle that you see. In old sod grounds these larvæ are very abundant, and will destroy many of your plants. The beds are to be planted after the weeding. Call for any other information you may want.—Ed.]